

REMARKS

Claims 1-12 are pending in the application.

Claims 1-10 are rejected and claims 11 and 12 are objected to.

Claim 1 has been amended to clarify the claimed invention.

Applicant's claims 1 and 2 include features, for example as discussed on pages 10-11 in the applicant's specification, including a transmission apparatus of the embodiment of Fig. 3, the input port part 14 notifies the switch selection control part 16 of the output request (containing the input port number). The output window part 20 notifies the switch selection control part 16 of the data storage information concerning each buffer.

The selection control circuit 16 controls the switch part 18 so that data from the plurality of input ports are stored, without detecting a head part of the data, into buffers that have available areas among the plurality of buffers, in accordance with the data storage information of the plurality of buffers.

According to applicant's claimed invention advantages are gained in that even when variable-length packets, such as the IP packet, are inputted, the transmission apparatus can make effective use of the output buffers. For example see the descriptions from page 14, line 4 to page 15, line 9 of the specification. The effective use of the packet buffers enables reduction of the number of buffers required and promotes miniaturization of the apparatus. This example embodiment is not meant to limit the claims but help to explain the invention.

Claim Rejections

Claims 1-5 are rejected under 35 U.S.C. § 103(a) as unpatentable over Chiussi et al. (Chiussi) in view of Timbs in view of Lechleider (US 6,359,883).

It is argued in the Office Action that Lechleider, col. 12, lines 6-53, shows the multiplexing of data without detecting a header part of the data.

As previously admitted, Chiussi fails to disclose or suggest the features of the applicant's claimed invention: "controlling the switch part so that data from the plurality of input ports are stored, without detecting a head part of the data, into buffers that have available areas among the plurality of buffers in accordance with data storage states of the plurality of buffers" as particularly recited in claims 1 or 2.

Timbs discloses a frame-to-cell converter 413, but does not cure the deficiencies of Chiussi mentioned above.

The newly cited Lechleider reference discloses in figure 1 and the Abstract that the transmitter 110 and the receiver 210 are coupled by a pre-existing channel which has a known, fixed capacity. The transmitter/receiver pair exploits whatever delay is permissible, as determined by the end-user 11 of the data, for the data stream using the channel for the purpose of accommodating periods of excessive instantaneous aggregate data transfer demand. The matched transmitter/receiver pair permits the transmission of a variable rate stream over a channel with capacity less than the peak rate of the stream, or the multiplexing of variable and/or fixed rate data streams.

However, there is no specific teaching in Lechleider of "controlling the switch part so that data from the plurality of input ports are stored, without detecting a head part of the data, into buffers that have available areas among the plurality of buffers in accordance with data storage states of the plurality of buffers" as recited in claims 1 or 2.

In fact, Lechleider discloses at col. 12, lines 31-34, that the latency in these buffers (input buffers) must be large enough for the rest of the transmitter 110 to function smoothly and for the controller 130 to read header information in the packets stored in these buffers (input buffers).

The data is then switched from the input buffers to the output buffers under the control of the controller 130. Lechleider fails to disclose or suggest storing the data from the plurality of input ports into the buffers without detecting a head part of the data as in the applicant's claimed invention (claims 1 and 2).

Moreover, the combination of cited references fail to show each and every claimed feature. Nor is there any suggestion in the references themselves to make such a combination as proposed in the Office Action, therefore even if every feature was shown, the references fail to suggest such a combination. Applicant's own disclosure is being used as a roadmap to make such a combination. The combination of references fail to disclose or suggest the features and thereby cannot provide advantages such as: even when the variable-length packets, such as the IP packet, are inputted, the transmission apparatus can make effective use of the output buffers.

For at least the foregoing reasons it is respectfully requested the rejection be withdrawn.

Claims 6-9 are rejected as unpatentable over Chiussi, Timbs, Lechleider and further in view of Roy et al and Claim 10 is likewise deemed unpatentable over Chiussi, Timbs, Lechleider in view of Azizoglu et al. (US 6,430,201).

As previously discussed, Chiussi fails to disclose or suggest the features of the applicant's invention: "controlling the switch part so that data from the plurality of input ports are stored, without detecting a head part of the data, into buffers that have available areas among the plurality of buffers in accordance with data storage states of the plurality of buffers" as recited in the current claims 1 or 2.

Timbs discloses a frame-to-cell converter 413. Roy shows in figure 1 that ATM and IP packets are transported in an SPE of the port processor. However, neither of Timbs or Roy cures the deficiencies of Chiussi mentioned above.

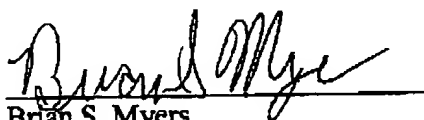
Azizoglu shows in figure 3 a transmitter node where the data bytes from the 8b/10b codecs are stored in the FIFO buffers in the interleaver 30. However, Azizoglu does not cure the deficiencies of Chiussi or Lechleider mentioned above.

Accordingly, it is respectfully submitted that the cited documents (Chiussi, Timbs, Lechleider, Azizoglu and Roy) do not anticipate or render obvious the features of the applicant's claimed invention for at least the foregoing reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


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